

# IRON MAN

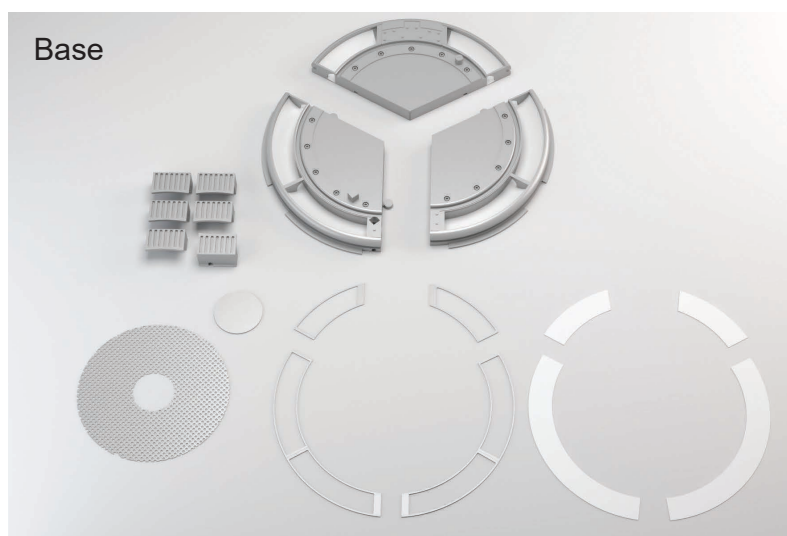
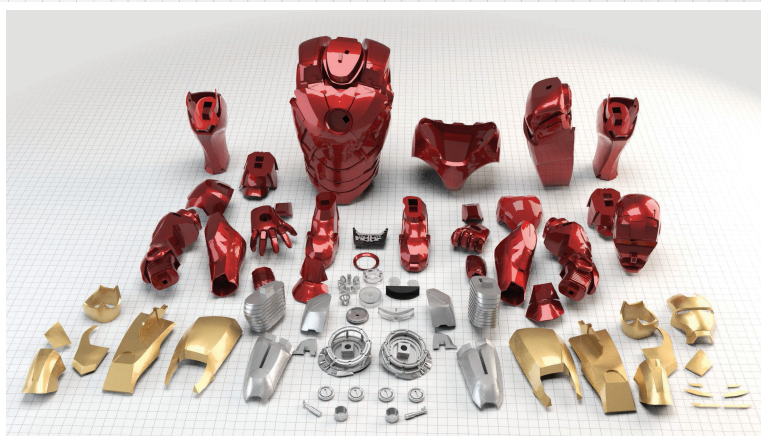
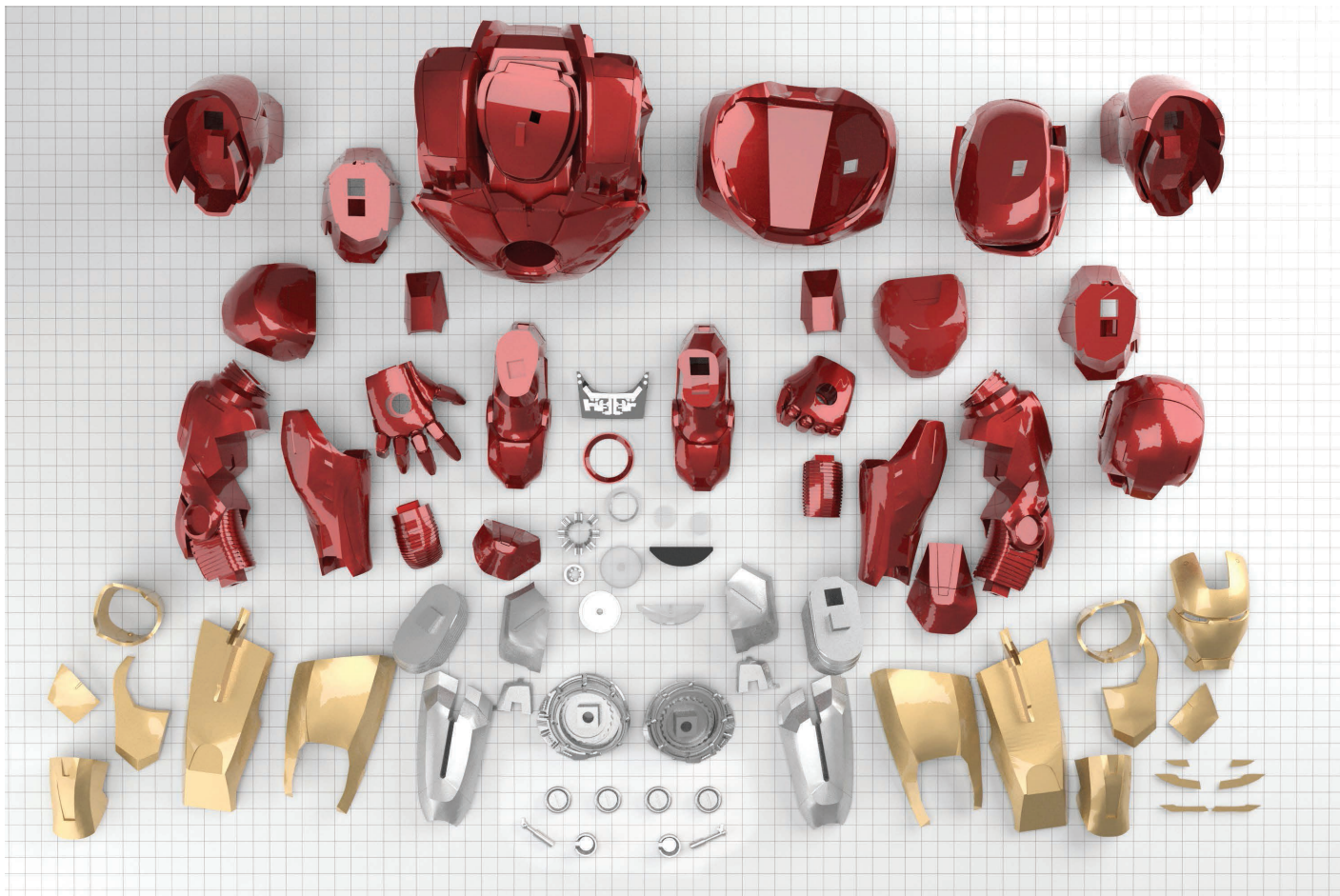
MARK VII (AVENGERS)



Didier PICARD Original Designer

ASSEMBLY MANUAL

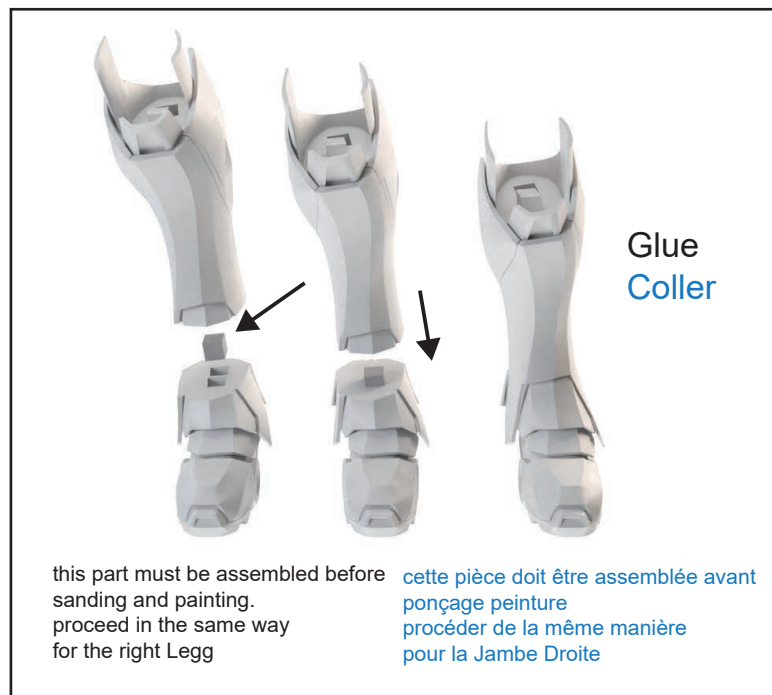
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**WARNING!** All parts must be printed and painted in colour before assembly.  
**ATTENTION!** Toutes les pièces doivent être imprimées et peintes à la couleur avant la montage.



# TIPS/INFO



Printing Recomander 0.15 mm / layer 2 perimeters

Impression Recomander 0.15 mm / couche 2 périmètres

If you also have a Resin SLA printer  
it is provided in the file:

"STL\_SLA\_Resin\_OPTION"

Parts that are best used in SLA

STLs in the folder "STL\_IronMan\_needs Supports"  
must be printed with support.

STLs in the folder "STL\_IronMan\_No needs Supports"  
do not need supports.

Si vous avez également une imprimante Résine SLA  
il est fournie dans le dossier:

«STL\_SLA\_Resin\_OPTION»

Des pièces qu'il est préférable d'utiliser en SLA

Les STL dans le dossier "STL\_IronMan\_needs Supports"  
doivent être imprimés avec support.

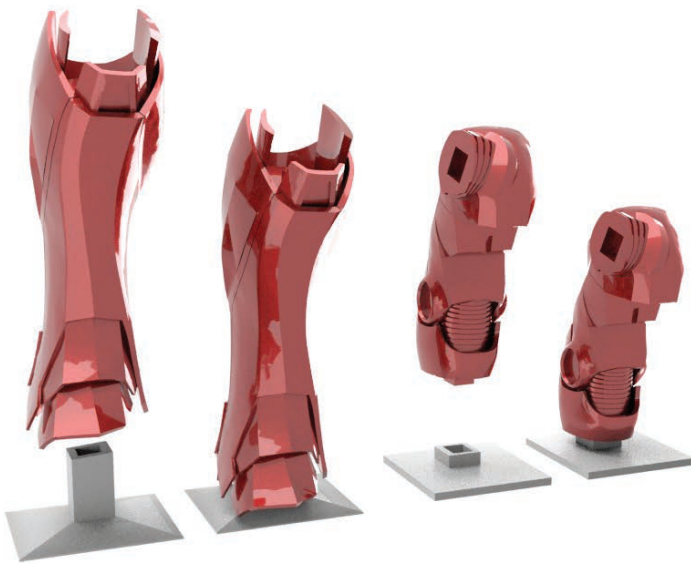
Les STL dans le dossier "STL\_IronMan\_No needs Supports"  
n'ont pas besoins de supports.

Gold parts that could not be separated must be painted over red before installation.  
 Des parties Or qui n'ont pas pu être séparé doivent être peintes avant montage par-dessus le rouge

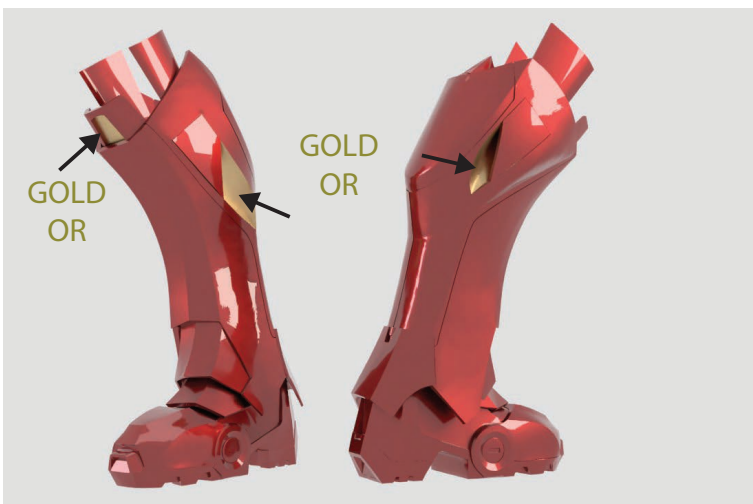
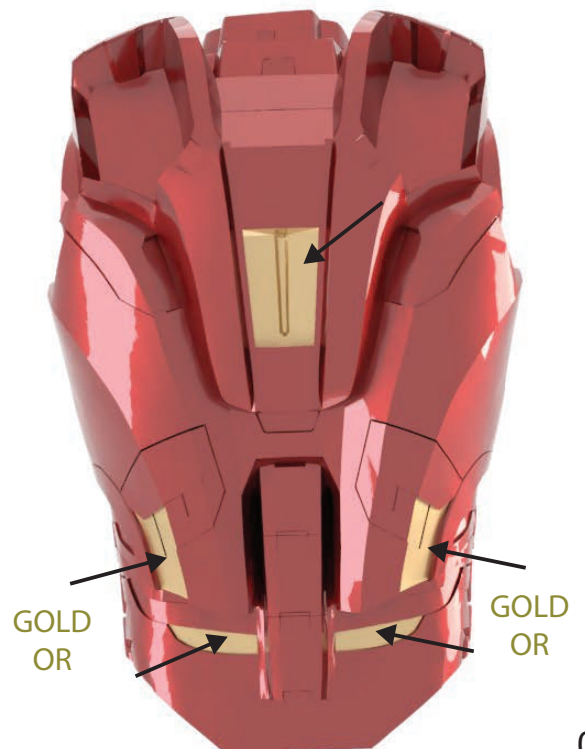
## Paint method /Technique de peinture



recovered some paint from the spray  
 can in a container to use with brush  
 récupéré un peu de peinture de la bombe  
 dans un percipient pour utilisé au pinceau

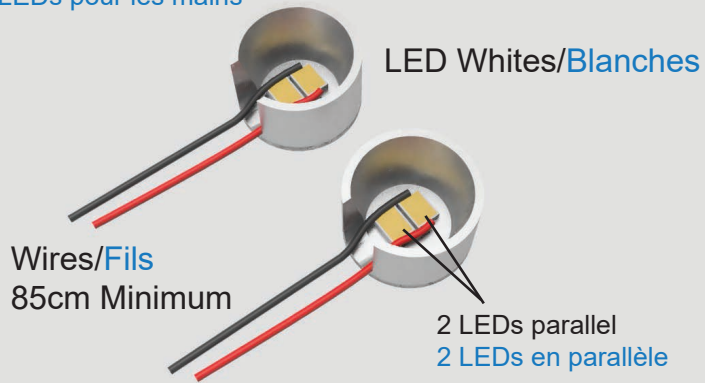


To paint easily use the supports provided  
 Utilisé les supports pour peindre facilement fournie

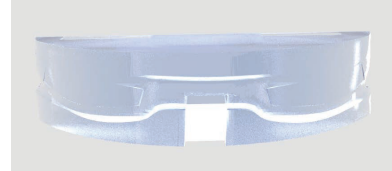
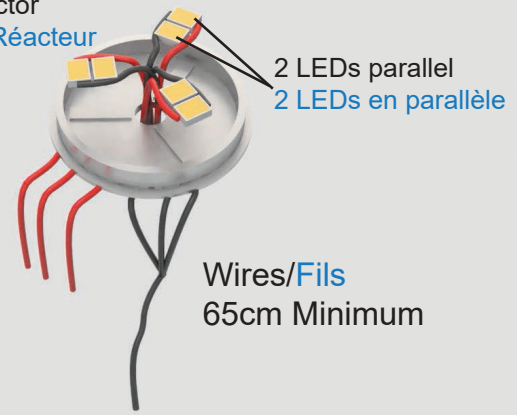




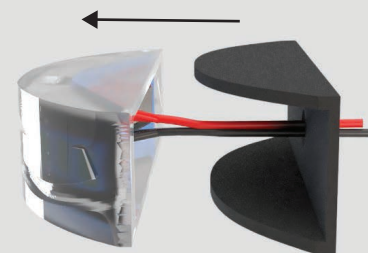
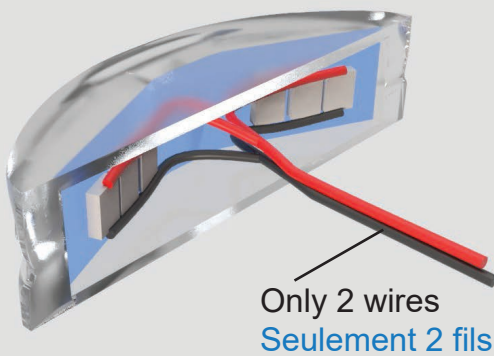
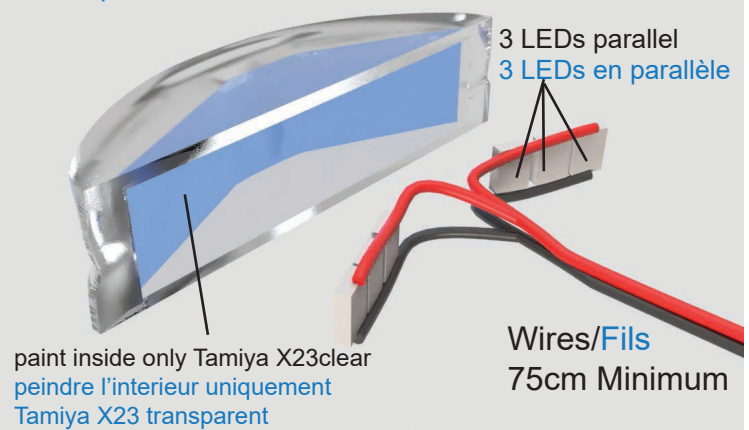
LEDs for hands  
LEDs pour les mains



LEDs for Arc Reactor  
LEDs pour L'Arc Réacteur



LEDs for Eyes  
LEDs pour Les Yeux

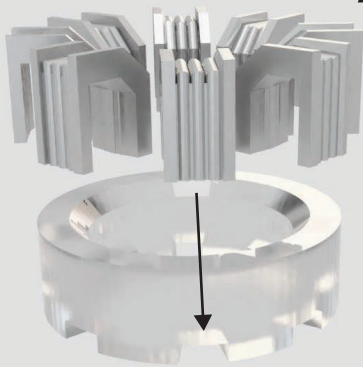


Tip/astuce

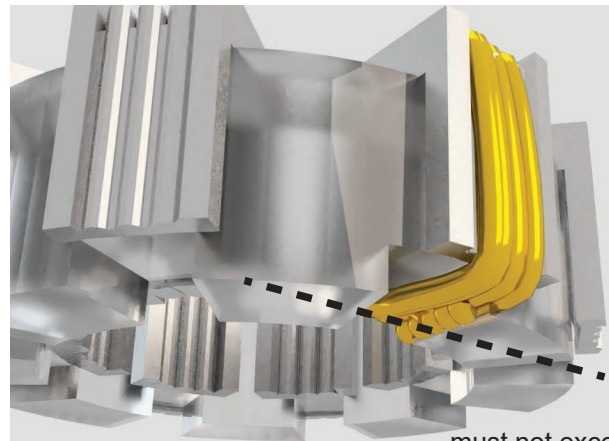
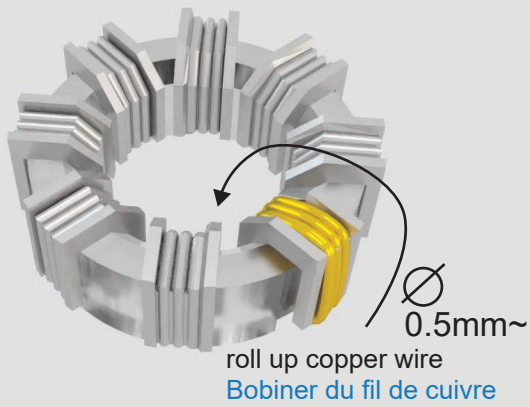
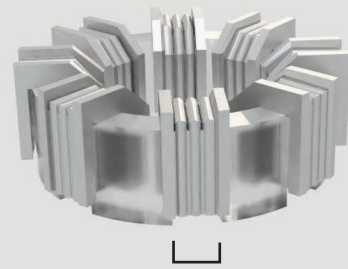
the best solution and to have 6 colors for the threads + .  
And all - in black

la meilleure solution et d'avoir 6 couleurs pour les fils + .  
Et tous les - en noir

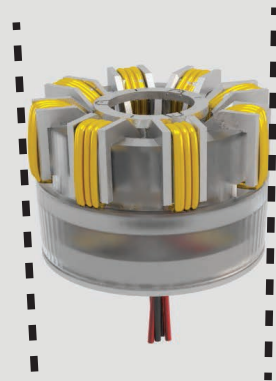
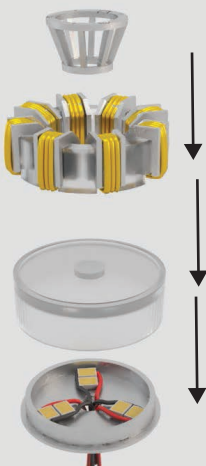
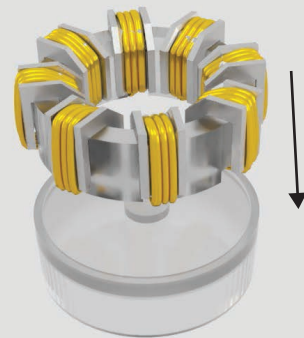
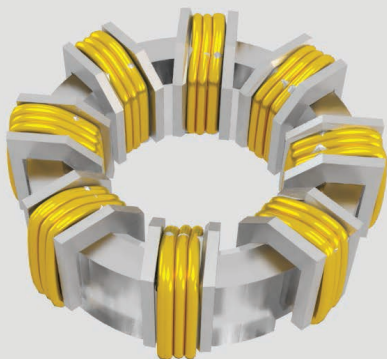
# Arc reactor



lined up on a hole  
Aligner sur un creux

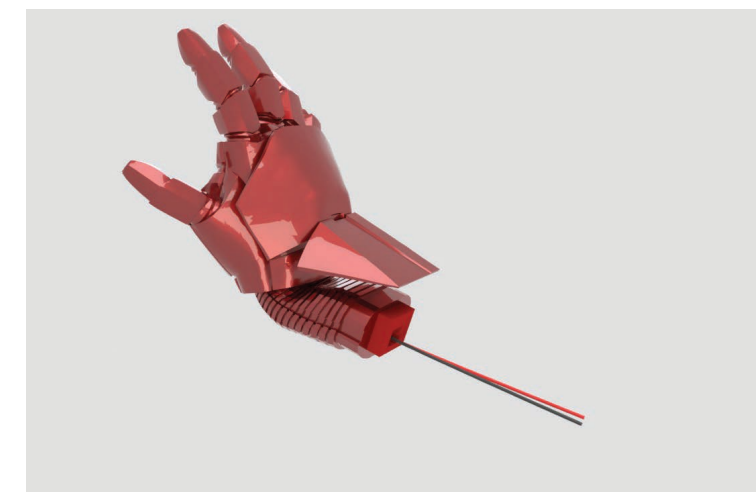
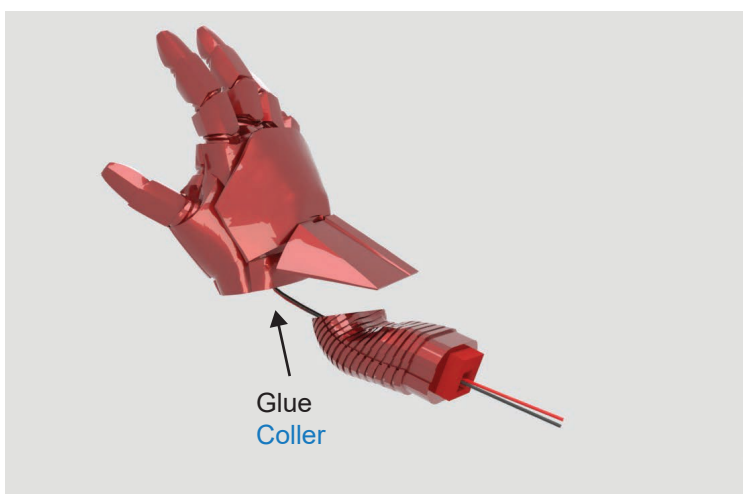
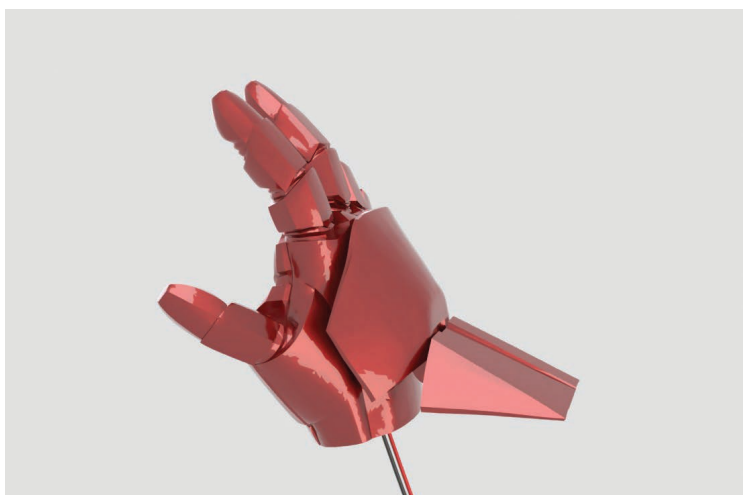
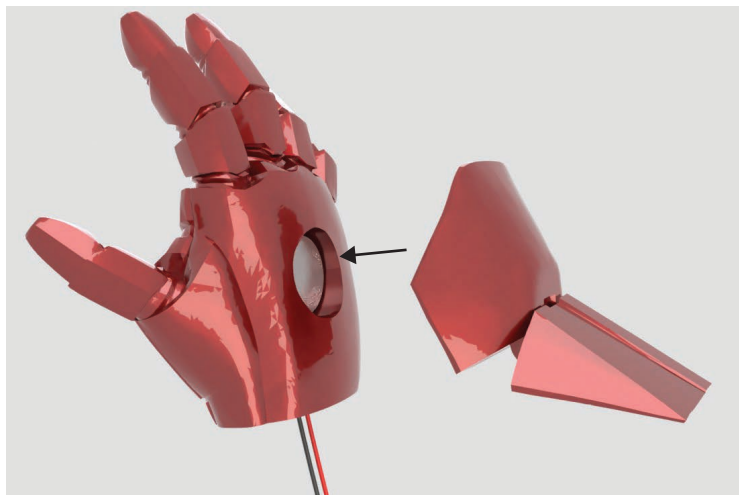
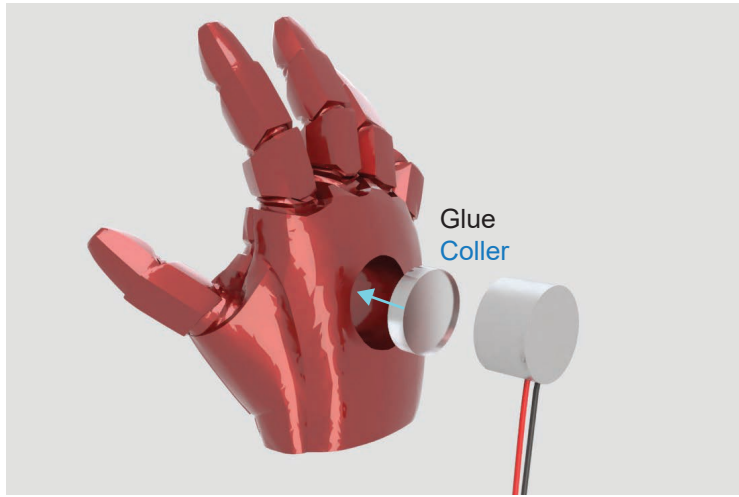


must not exceed  
ne doit pas dépasser

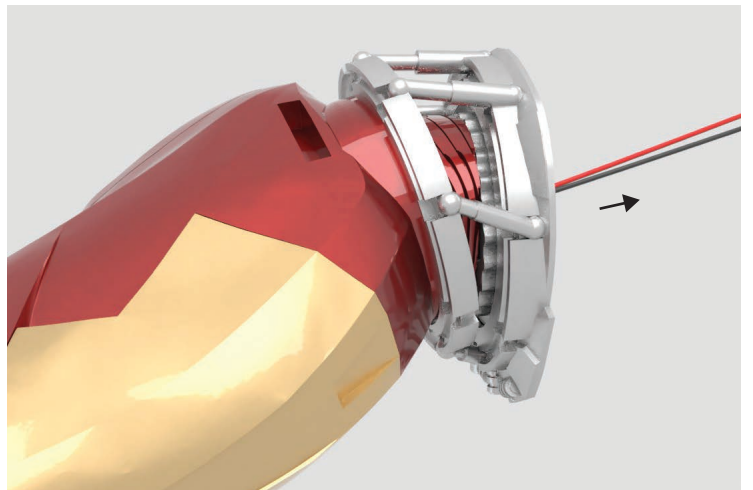
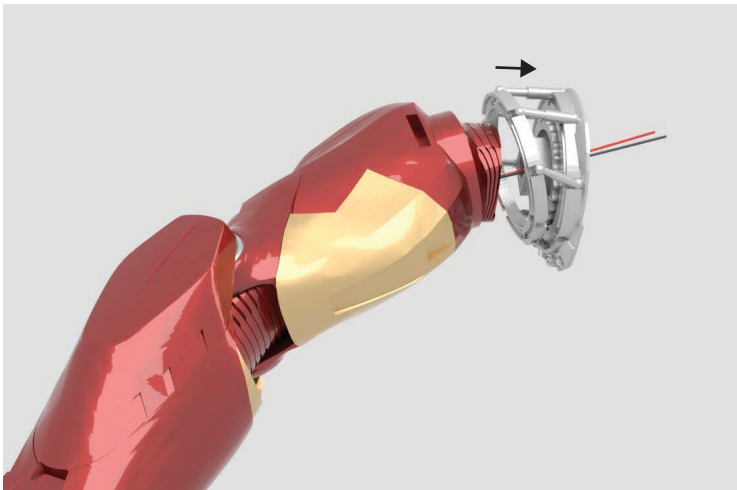
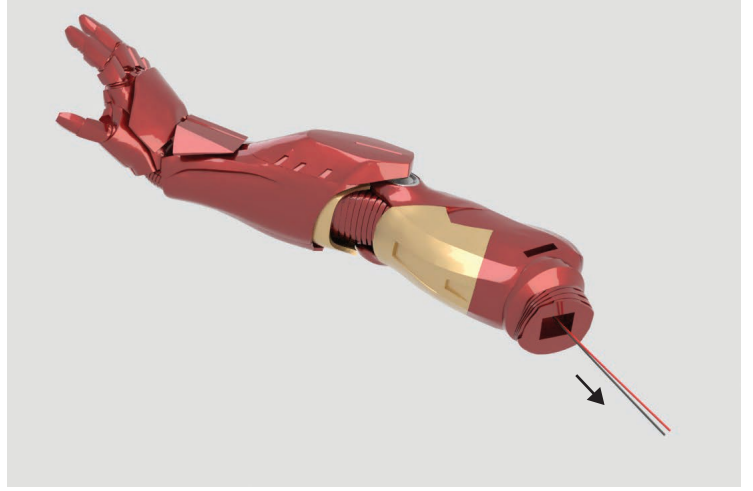
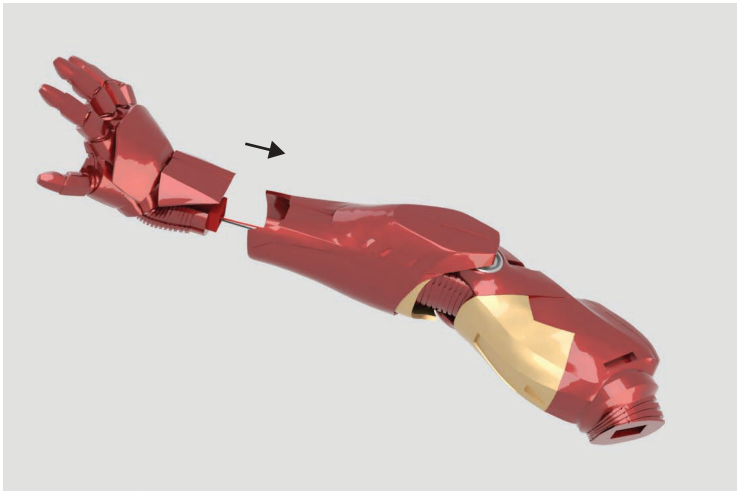
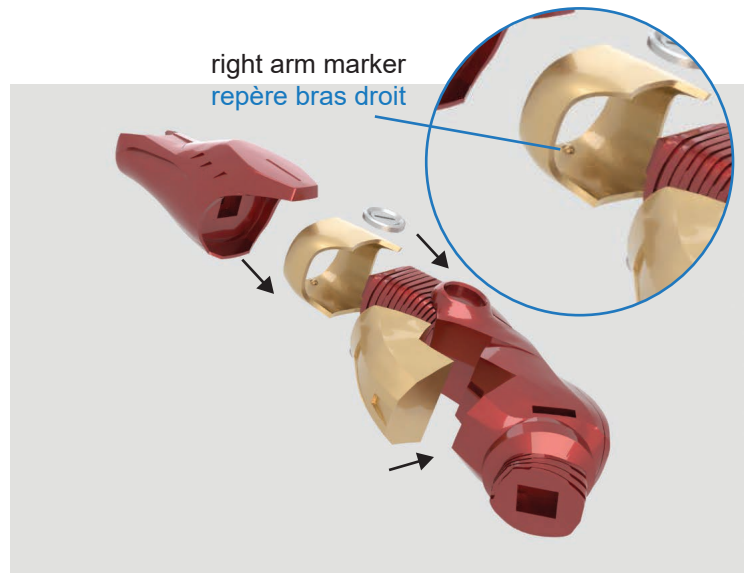
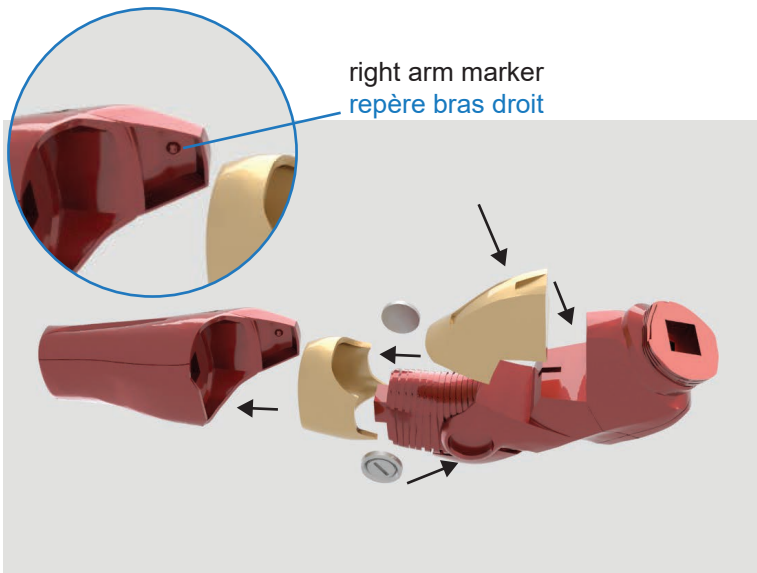


must not exceed  
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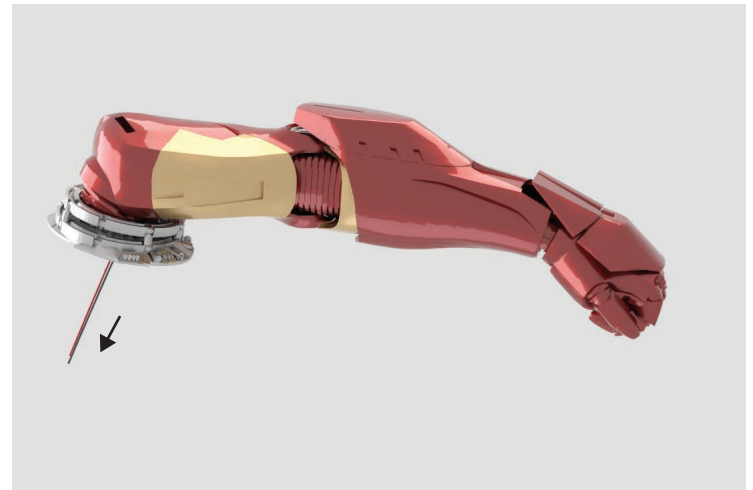
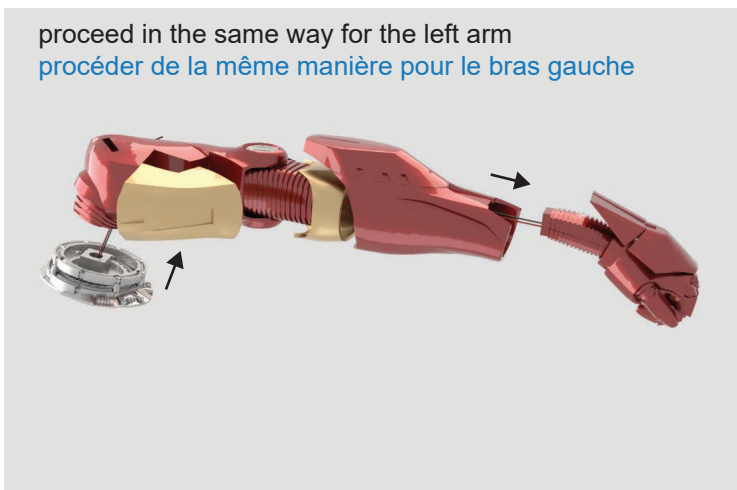




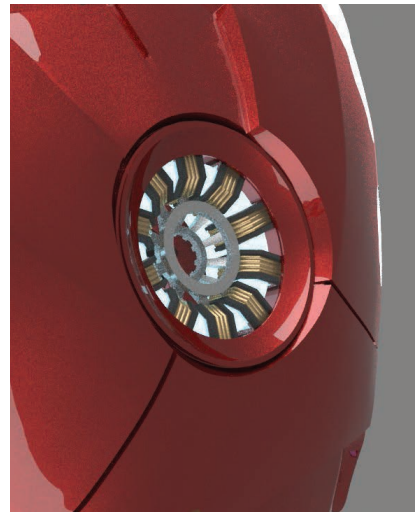
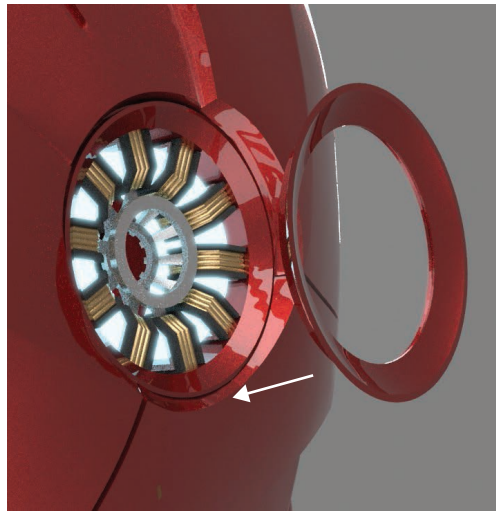
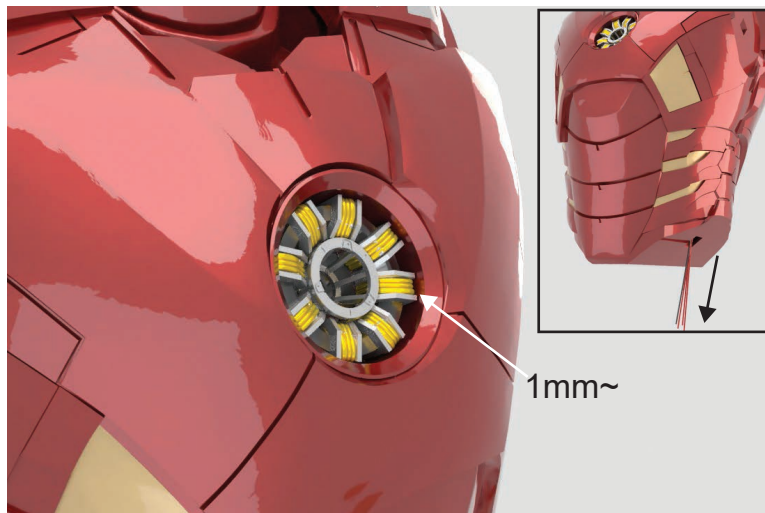
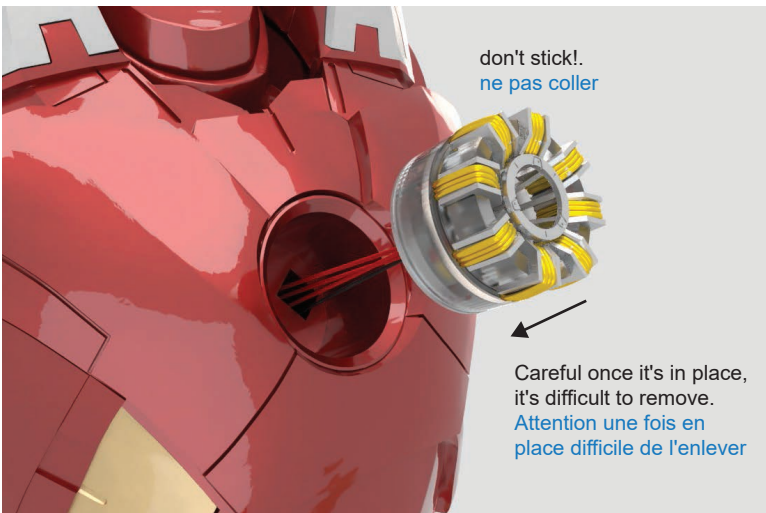
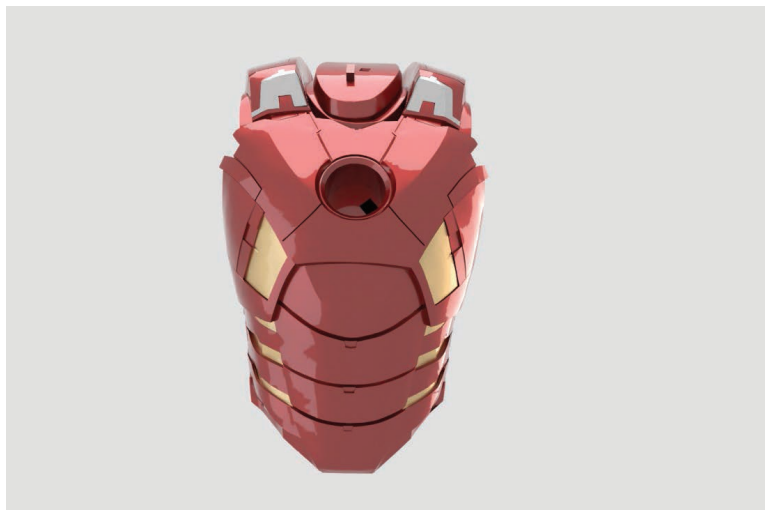
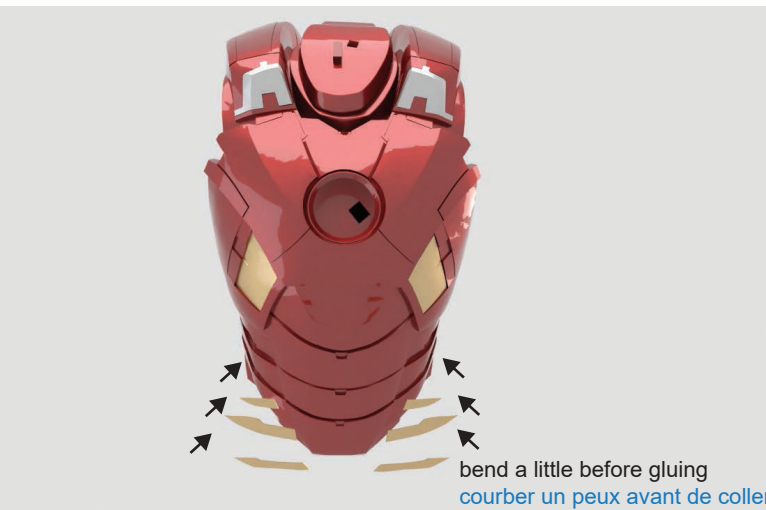
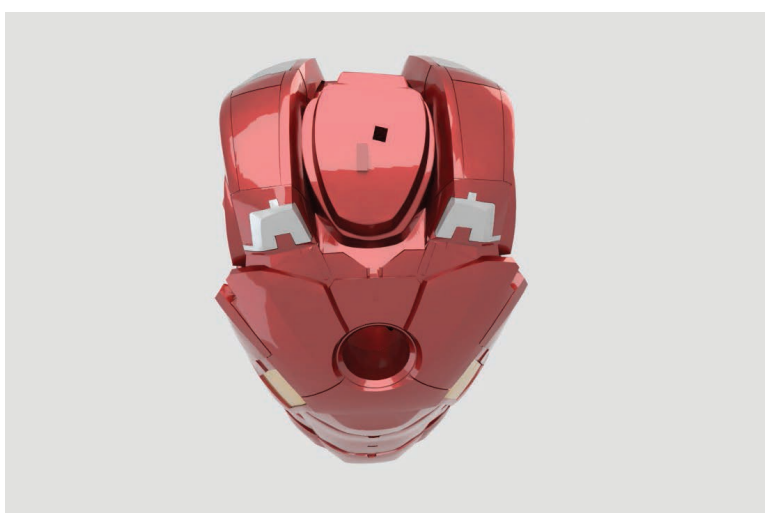
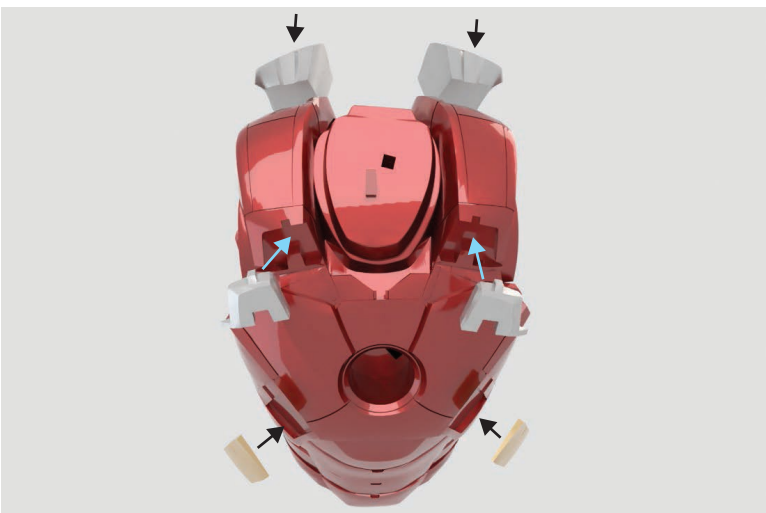
proceed in the same way for the left hand  
procéder de la même manière pour la main gauche

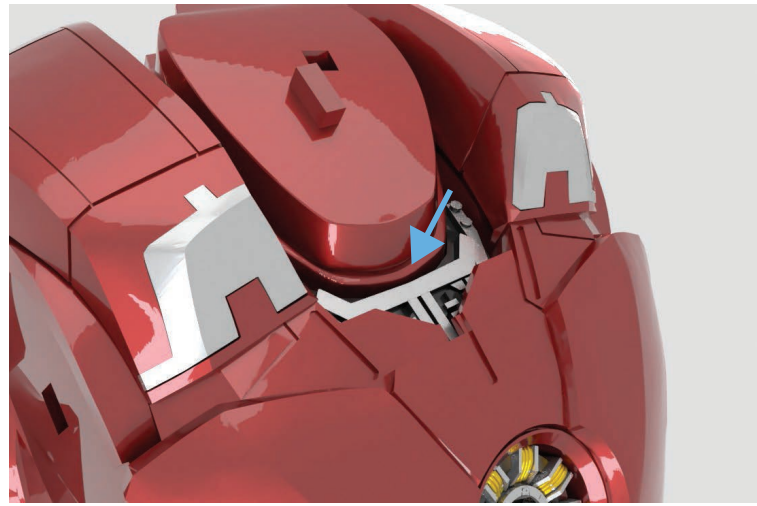
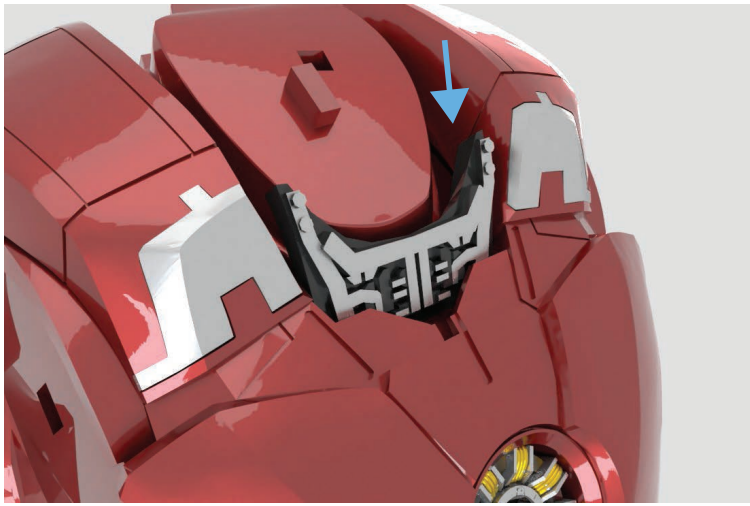


proceed in the same way for the left arm  
procéder de la même manière pour le bras gauche



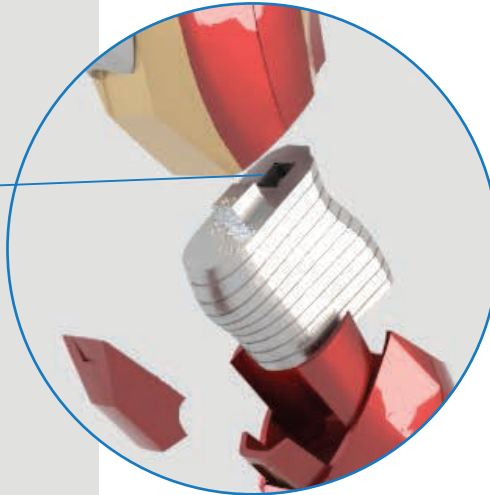
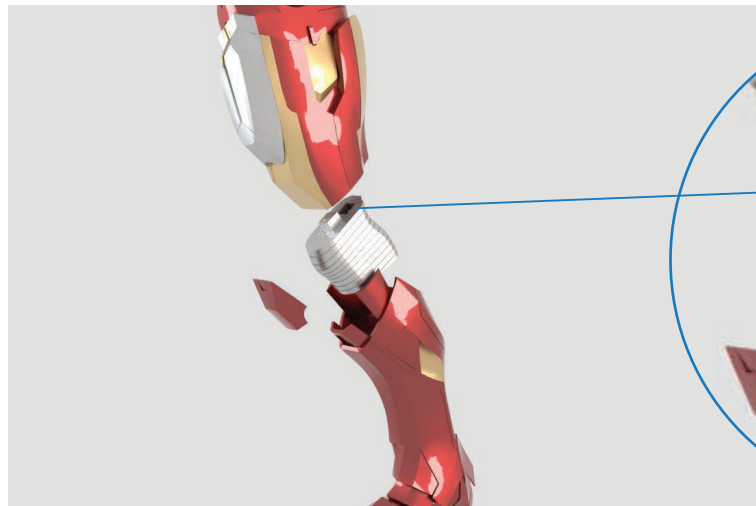
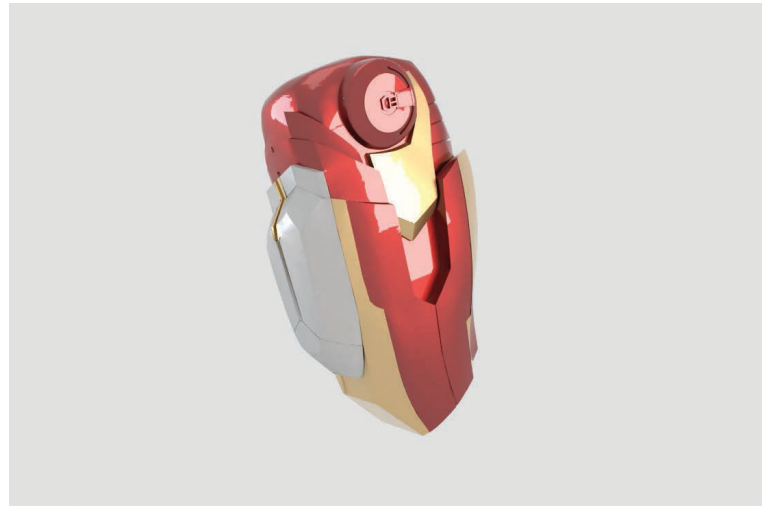
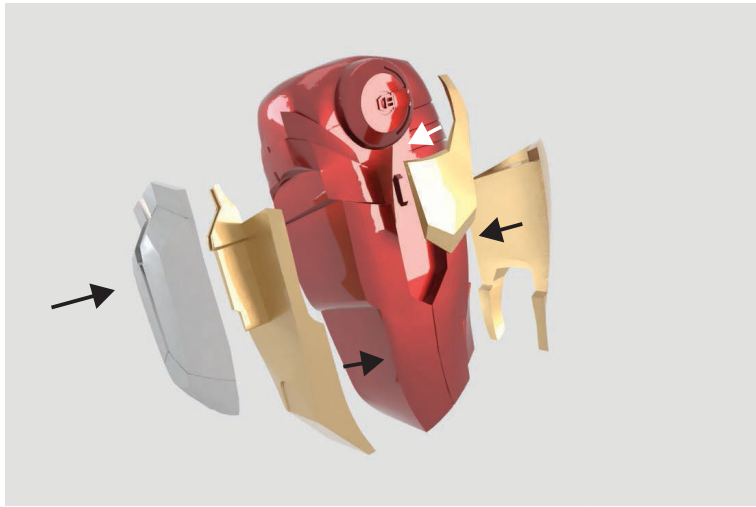






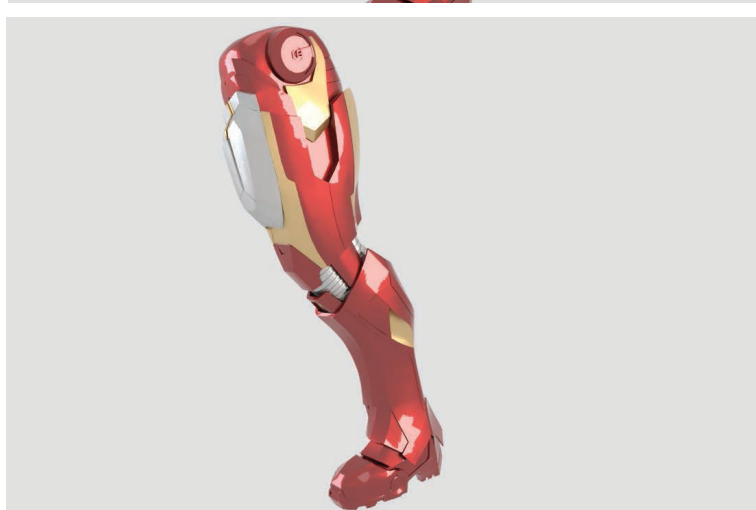
Careful once it's in place,  
it's difficult to remove.

Attention une fois en  
place difficile de l'enlever



use the knee with  
the hole for the left leg.

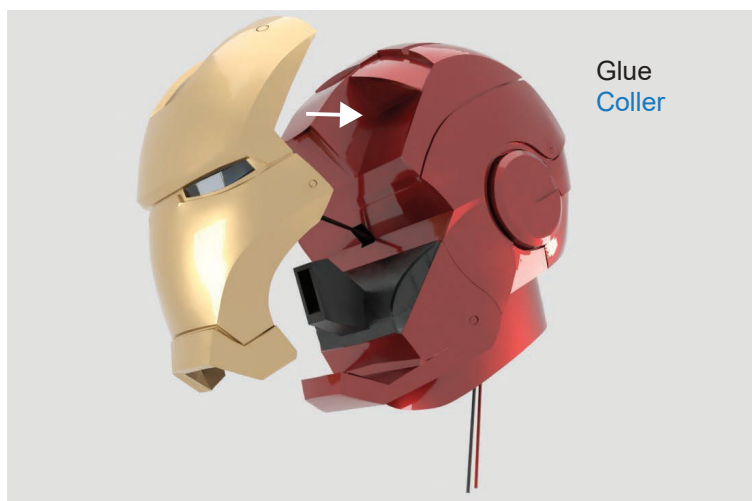
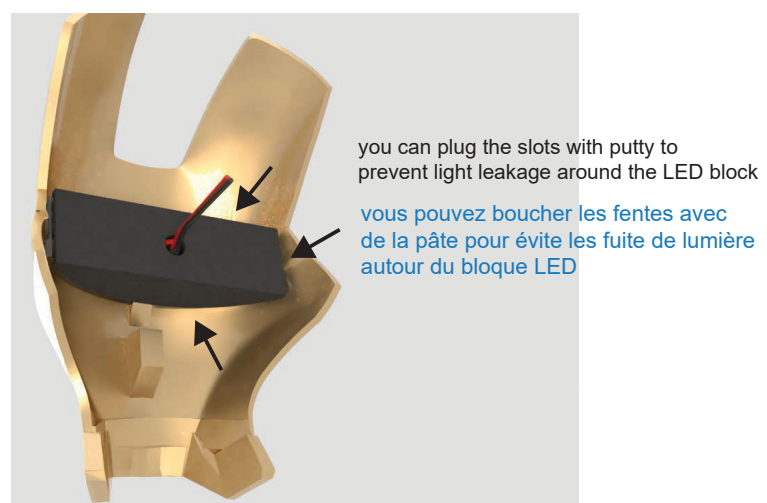
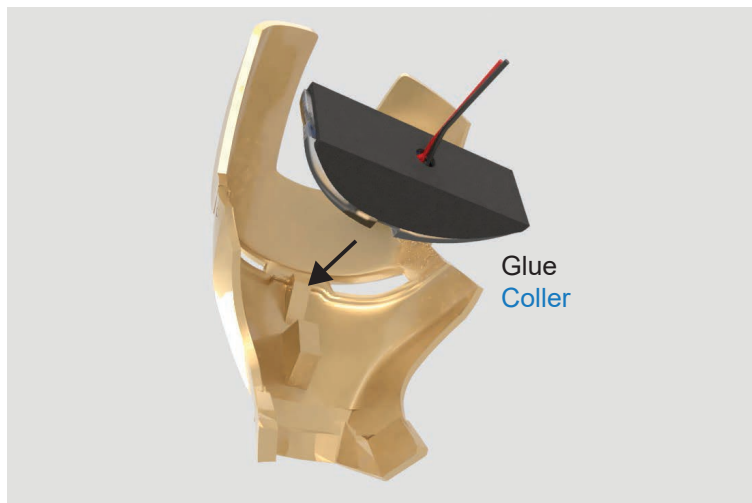
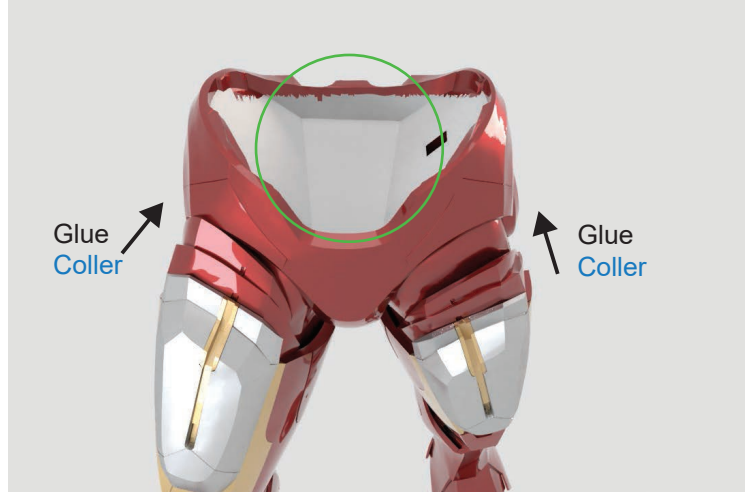
utiliser le genoux avec  
le trou pour la jambe gauche

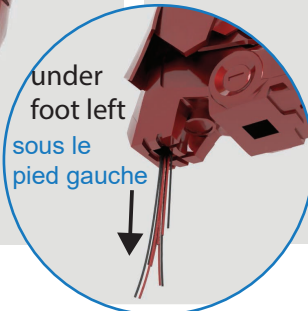
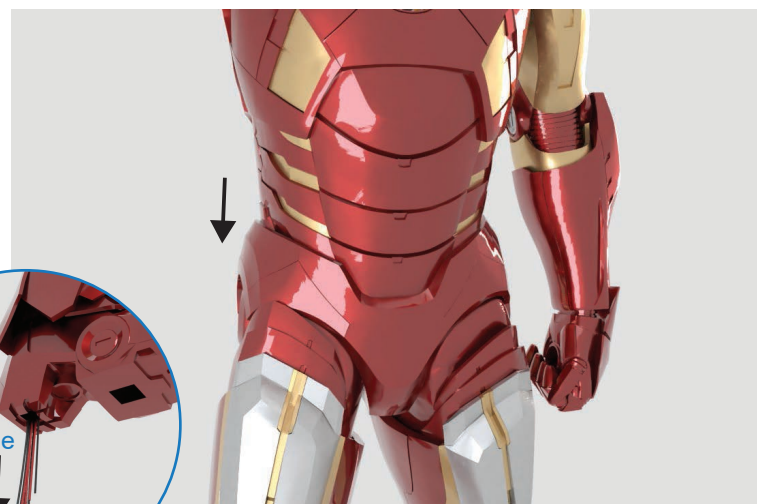
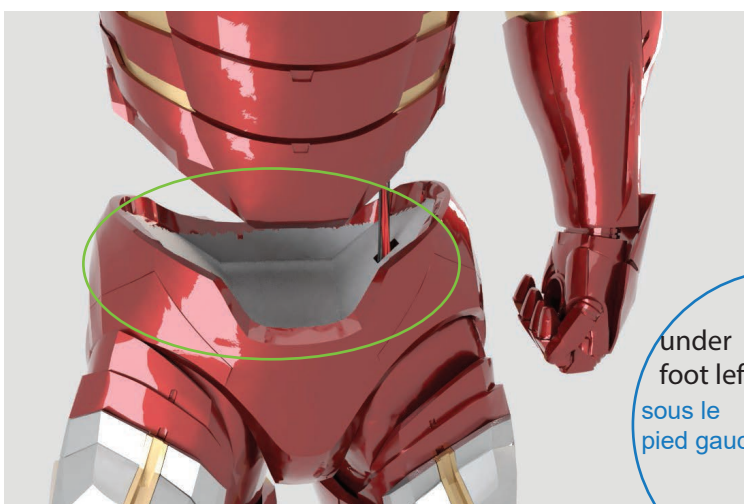
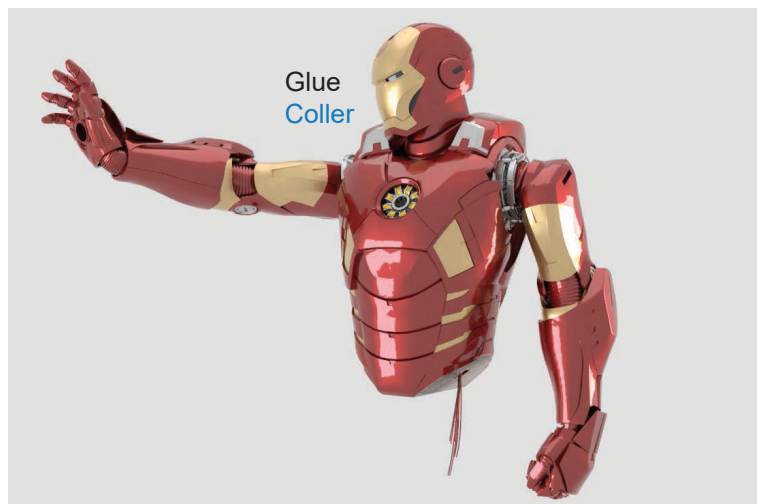
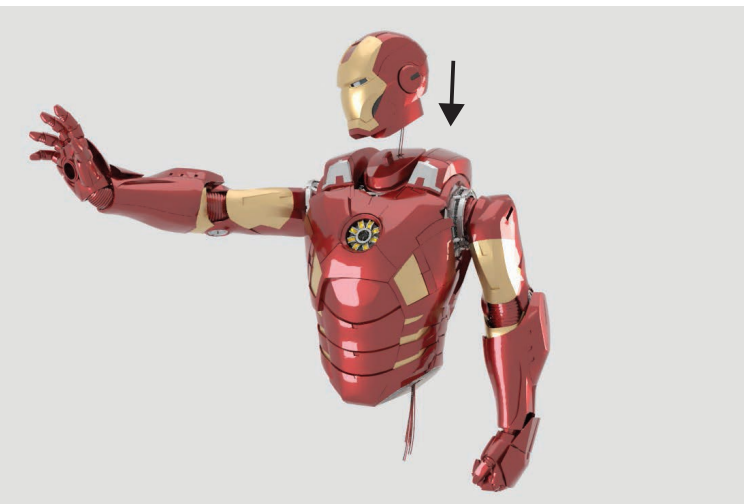
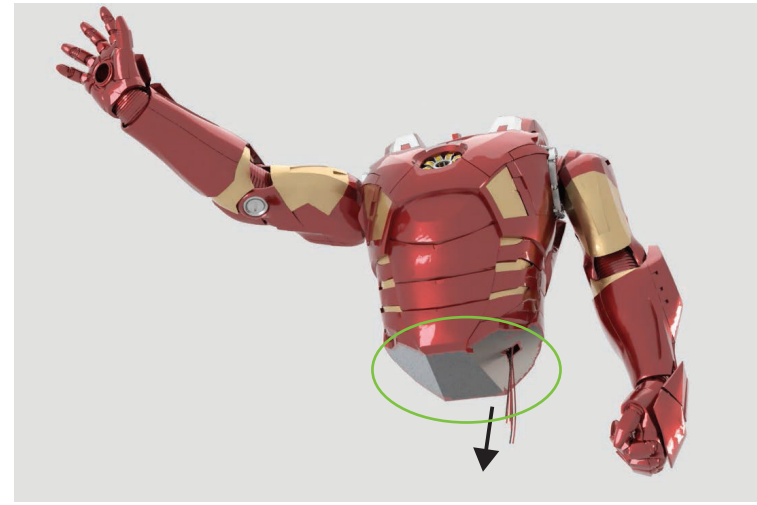
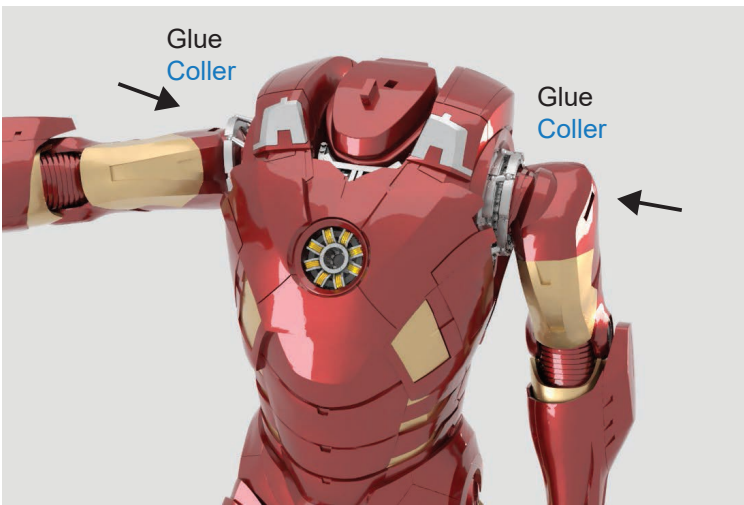
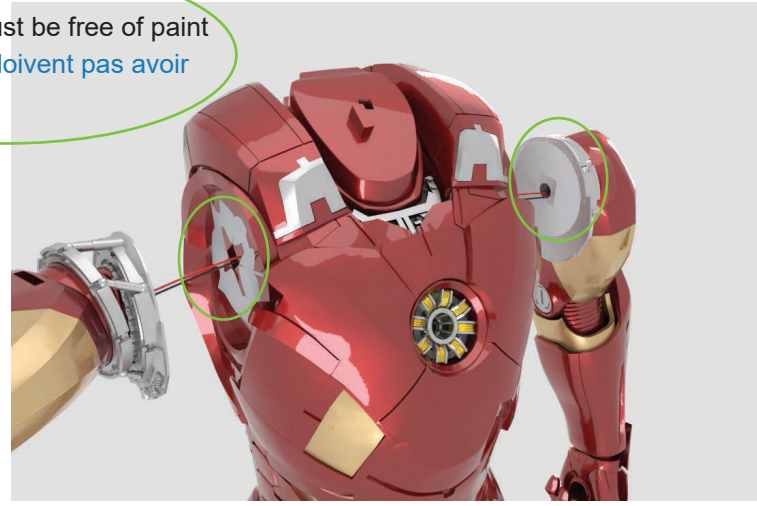
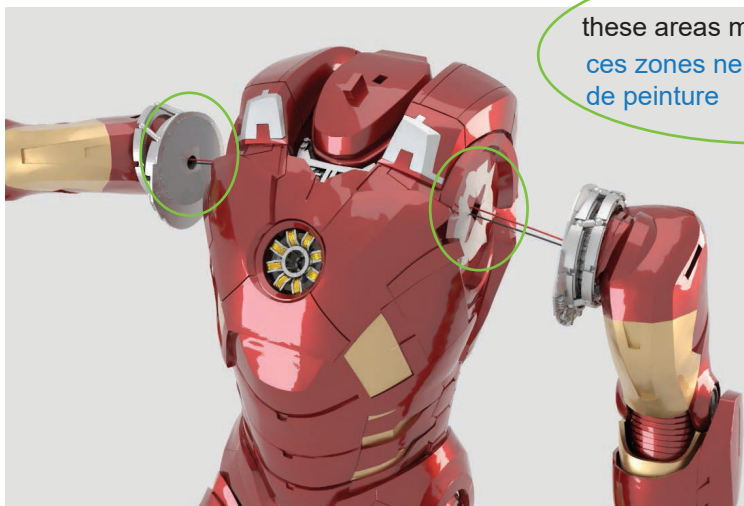


proceed in the same way  
for the right Legg

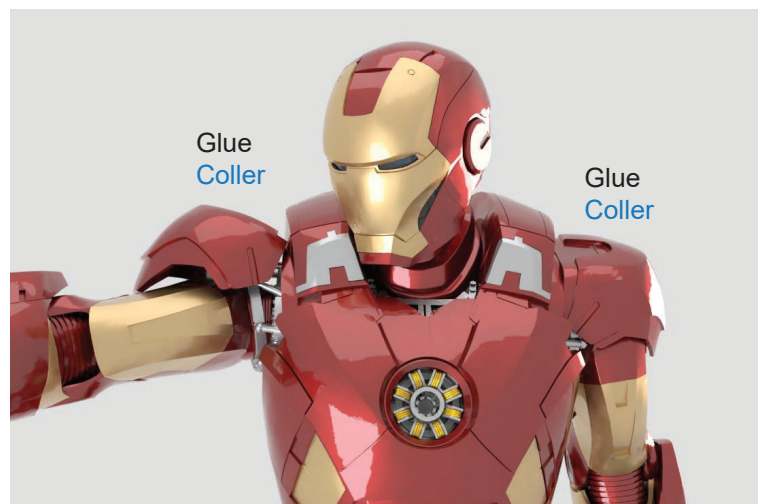
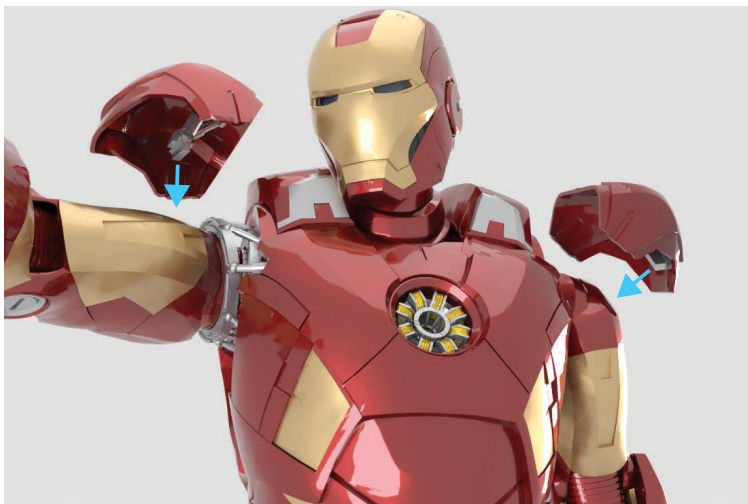
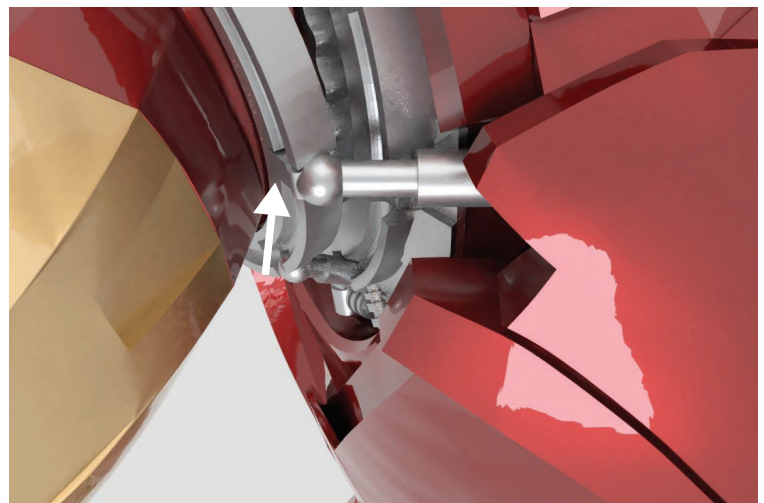
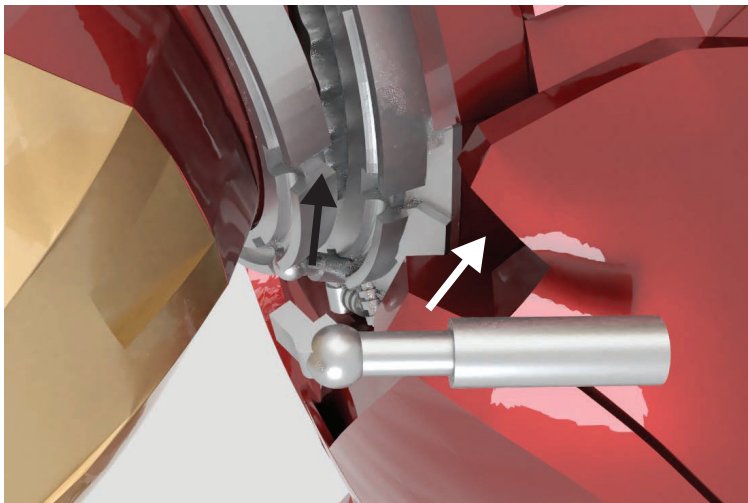
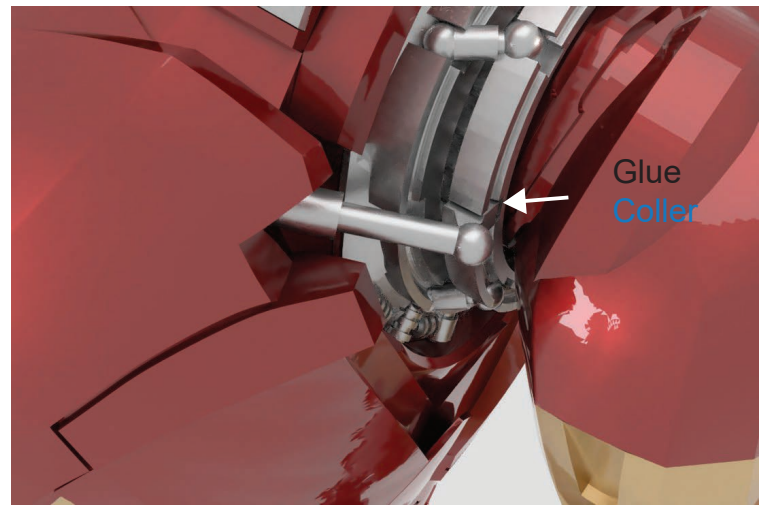
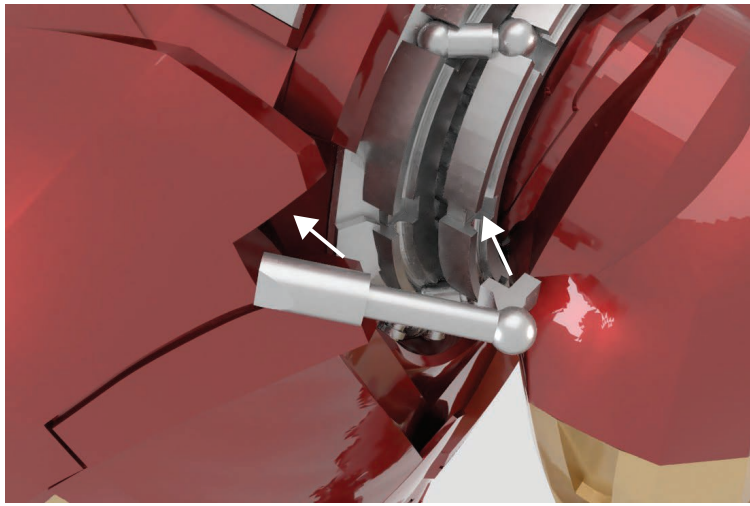
procéder de la même manière  
pour la Jambe Droite





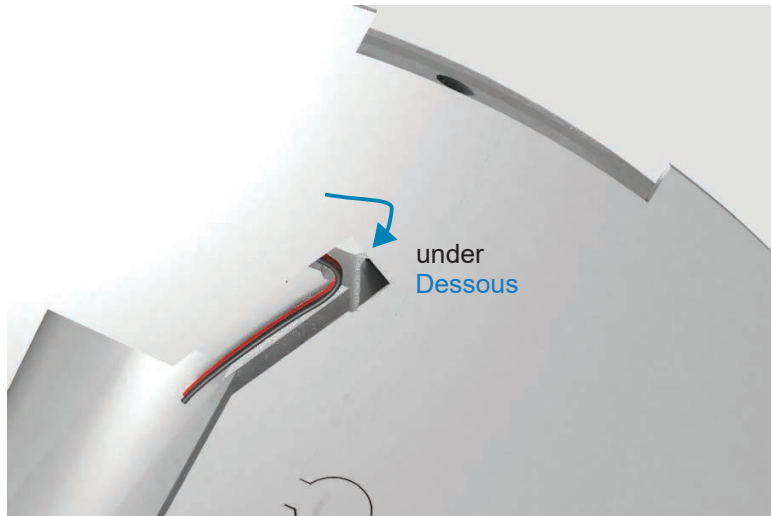
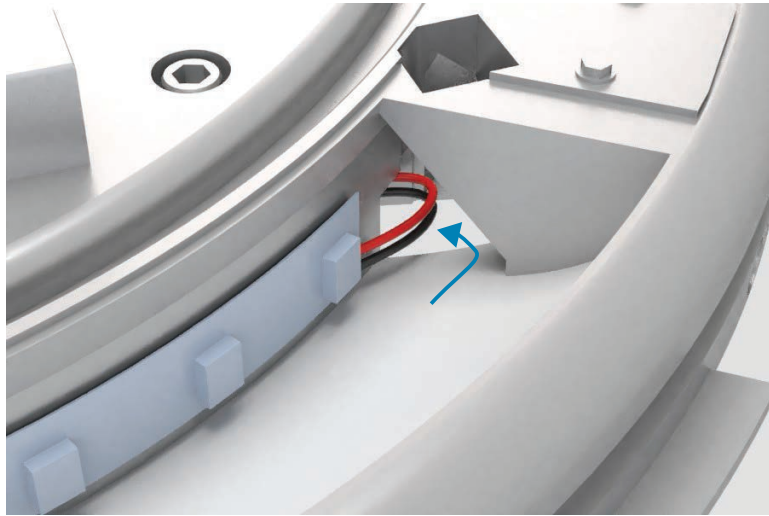
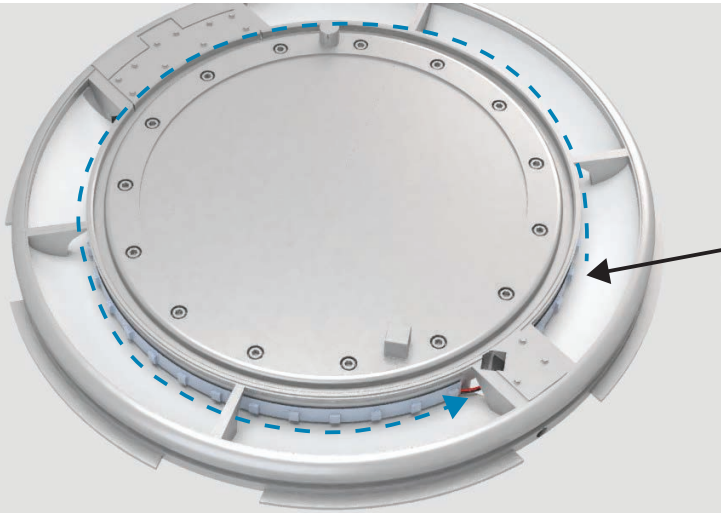
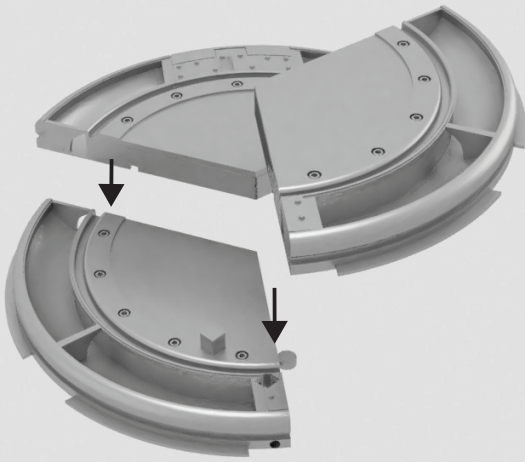




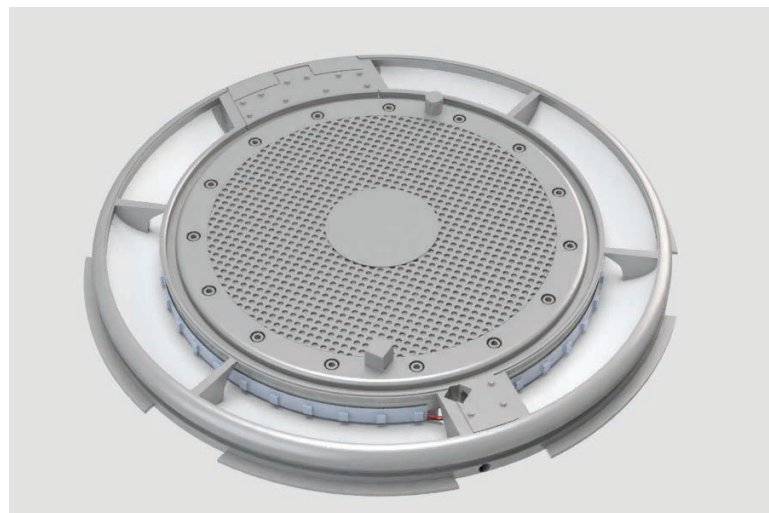
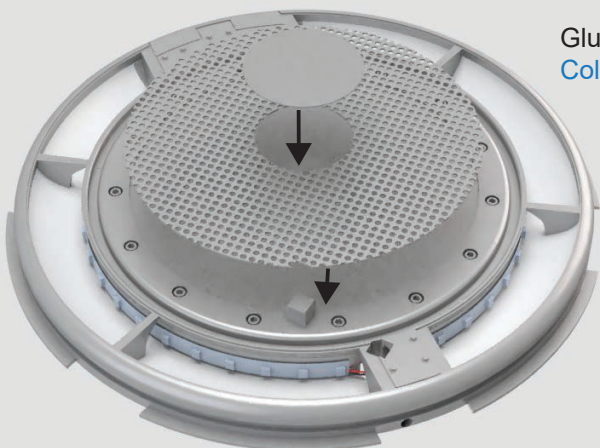


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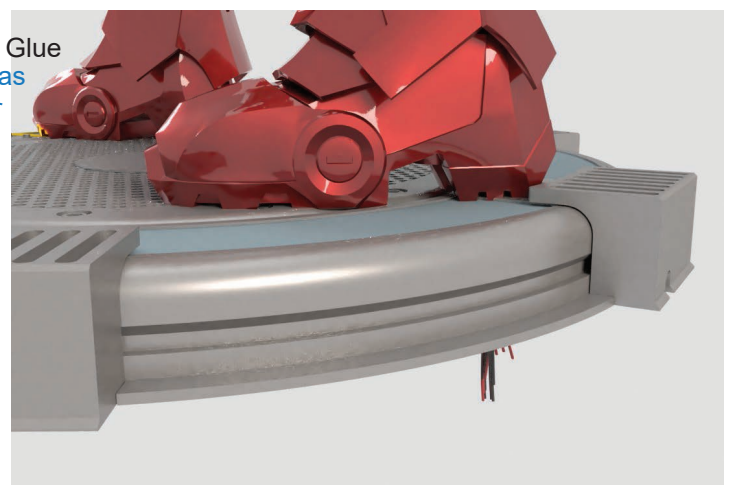
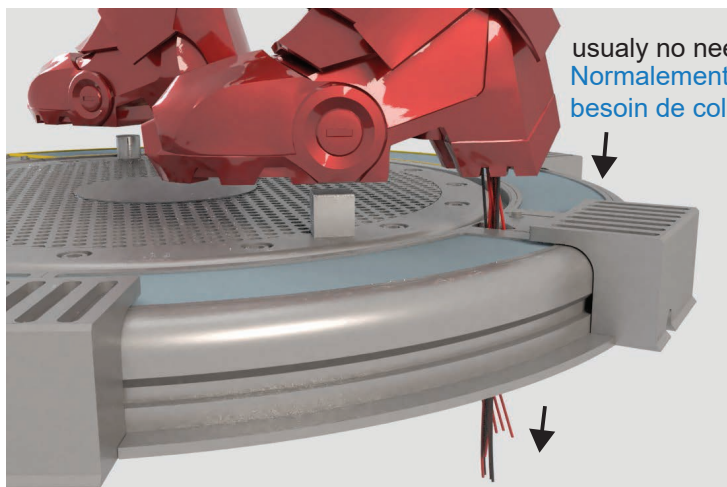
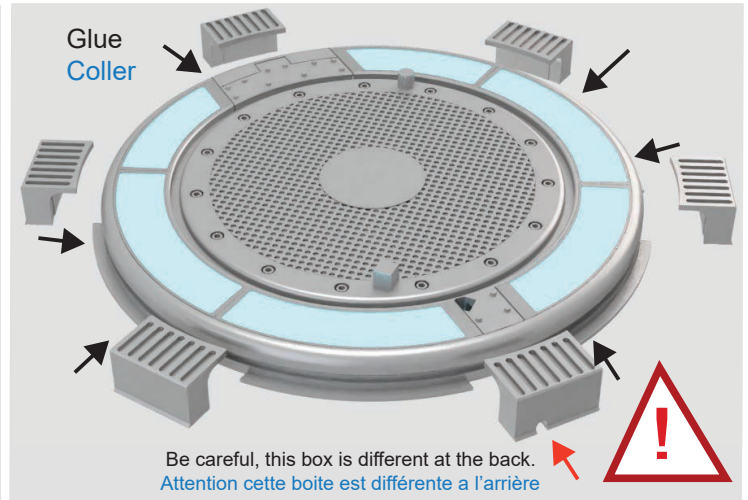
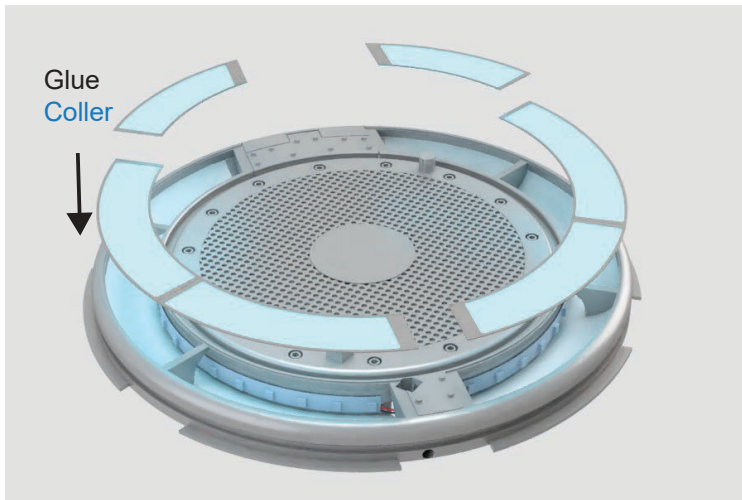
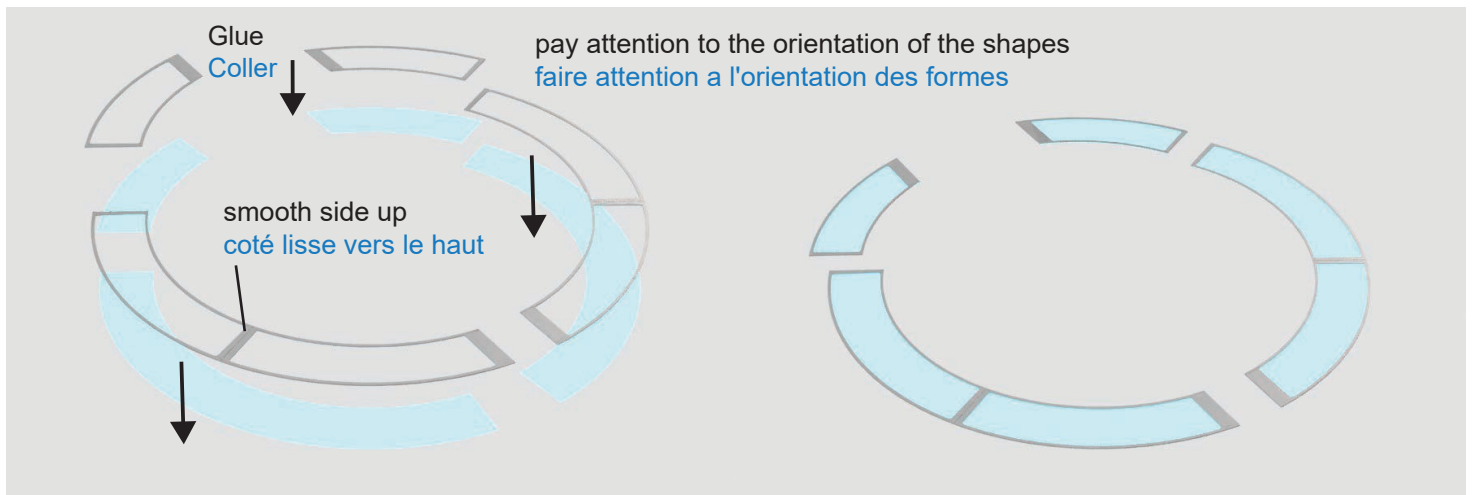
Must be white  
doit être blanc



Glue  
Coller

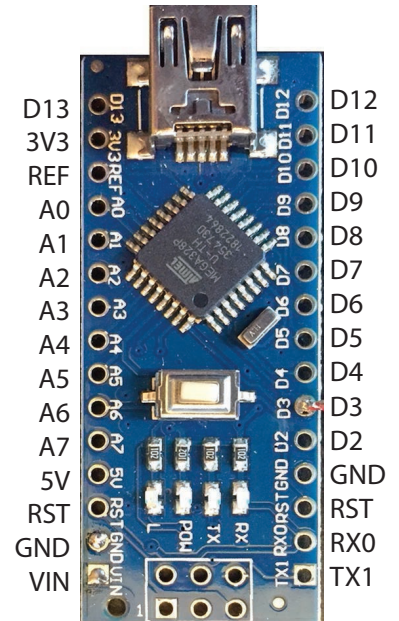
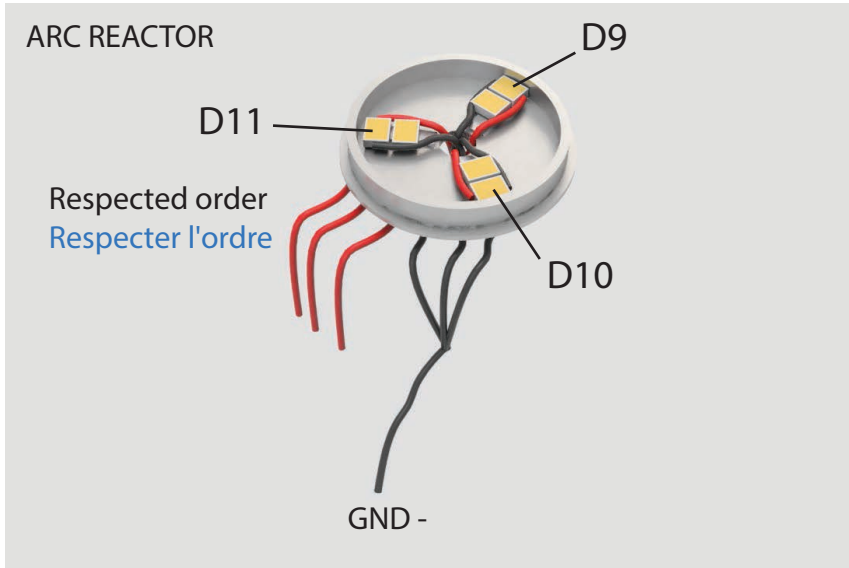






Finished  
Fin

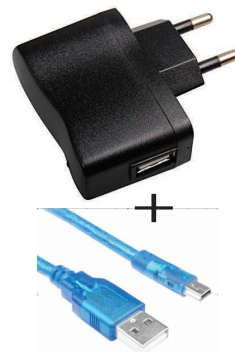
# WIRING ARDUINO NANO



Connect each + of the leds to the indicated Arduino terminal, and every - has the ground terminal (you can connect them all together - on one wire)

Relier chaque + des led a la borne Arduino indiqué et chaque - a la borne ground (vous pouvez relier ensemble tous les - sur 1 seul fil)

500ma mini



5V Smartphone  
Charger

plug on USB  
brancher sur prise USB



5V power  
plug on Input  
Arduino VIN

branché sur l'entrée  
VIN de l'arduino



Resistor can be find  
in batterie box  
La résistance peut être trouvée  
dans le boîtier de pile.

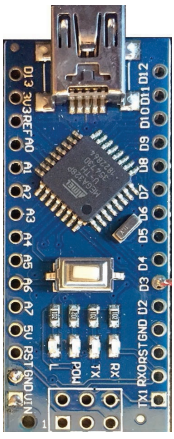


Power Bank USB 5V  
Batterie 5V USB

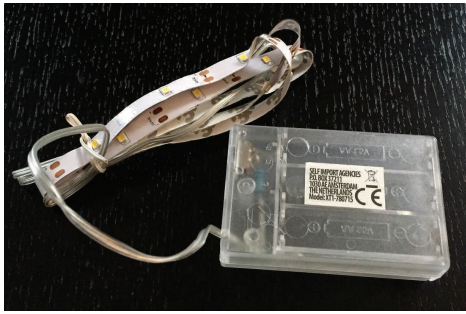
plug on USB  
brancher sur prise USB



# NEED LIST / LISTE DE BESOIN



ARDUINO Nano  
ATmega328P 5V



LED Ribbon 1m White  
Ruban LED 1m Blanc



Spray filler  
Mastic en bombe  
X 1 or 2



Sand paper  
Papier de verre  
280x500x1000x2000



TAMIYA X27  
X 5 minimum



TAMIYA X23  
X 1



TAMIYA X10  
for Base  
Pour la base  
X 1



Cyano  
glue  
X 2



glue activator be careful  
not to spray on silver  
or gold paint  
Activateur de colle attention  
ne pas pulvériser sur  
peinture argent ou or



optional resistor 1K  
Résistance en option 1k  
X6



5V Smartphone  
Charger  
plug on USB  
brancher sur prise USB



5V power  
plug on Input  
Arduino VIN  
branché sur l'entrée  
VIN de l'arduno



Power Bank USB 5V  
Batterie 5V USB



plug on USB  
brancher sur prise USB



SILVER / ARGENT 200ml  
X2  
GOLD / OR 200ml  
X1

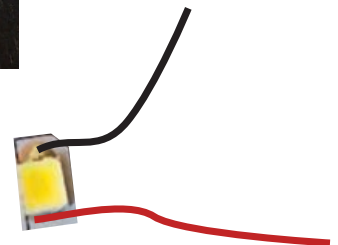
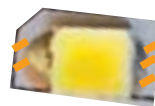
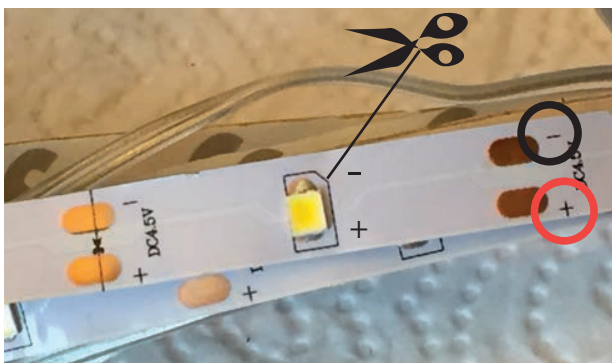


Wire 1mm~ long 90cm minimum  
6 different colours (recommended) + BLACK  
Fils 1mm~ long 90cm minimum  
6 couleurs (conseillé) différentes + NOIR



Here is a small doc to know which LED to use 5 Volt directly on Arduino without resistance:

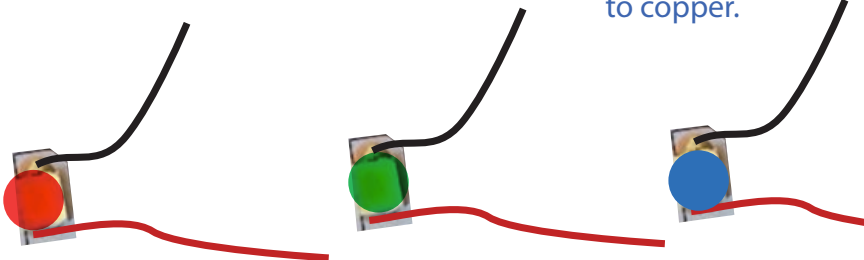
Voici une petite doc pour savoir quelle LED utiliser 5 Volt directement sur Arduino sans resistance:



Souder 2 files ,  
Solder 2 wires ,

Gratter un peu la peinture  
blanche jusqu'au cuivre.

Scratch the White paint a little bit  
to copper.



Possibilité de coloré avec une goutte de peinture TAMIYA CLEAR transparente.

Possibility of colouring with a drop of transparent TAMIYA CLEAR paint.



White Led

if bright is too high or LED hot you can use  
on each LED Pin a Resistor 1K (1 by Arduino PIN)

Si la lumiere semble trop forte ou chauffe vous pouvez utilisé  
sur Chaque sortie arduino led une resistance de 1K (1 par Pin d'arduino)

